



PROGRESS REPORT NO. 187

TO: Bonnie Arthur, U.S. Environmental Protection Agency (EPA) – via electronic mail
Robert Tan, EPA – via electronic mail

FROM: Denise Mills, Teck American Incorporated (TAI)

Cc: Kris McCaig, TAI – via electronic mail
Rob Orr, TAI – via electronic mail

DATE: February 15, 2022

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RE: Upper Columbia River (UCR) Remedial Investigation/Feasibility Study (RI/FS) –
Progress Report No. 187, Month Ending January 2022

Pursuant to Paragraph 39 of the June 2, 2006 Settlement Agreement (Agreement), the following is intended to provide a summary of activities completed during the past month in compliance with the Agreement. It is also intended to provide a brief summary of pending and on-going activities.

Soil Amendment Technology Evaluation Study (SATES) – TAI continued effort through the month to review, perform quality checks, and validate analytical results for field-scale treatability test soil samples collected in May, July, and October 2021 as results have become available. In January 2022, TAI received the remaining sets of sample analytical data for samples collected in 2021 and, as of this writing, the results are in the process of being validated. TAI began preparing the draft interim data summary report (DSR) that will summarize data collected during the first year of field work completed for SATES Phases III and IV, as described in the associated work plan. This interim DSR report will be submitted to EPA for review in mid-March.

Baseline Ecological Risk Assessment (BERA) – TAI submitted the pre-draft terrestrial BERA (the Draft Interim Partial Upland BERA) to EPA on June 24, 2021. TAI received EPA's full set of draft comments on December 1, 2021. TAI and EPA had a technical call on December 9, 2021 to review and discuss additional soil data sets that should be evaluated in the draft Upland BERA and draft Upland Remedial Investigation (RI) Report (see below), and EPA's comments indicating that additional sediment data should be collected from select upland lakes. TAI submitted a request for clarification of five of EPA's comments on the draft Interim Partial Upland BERA to EPA on January 5, 2022 and awaiting responses to this request. As of this writing, TAI is preparing an updated table summarizing the available soil data sets and how the data may be used in the Upland BERA and RI report.

Aquatic BERA – TAI received a letter from EPA on December 23, 2021 listing studies and data sets that should be evaluated for inclusion in the draft Aquatic BERA, and that provided a draft data usability evaluation prepared by EPA. This letter was provided as an update to a memorandum, dated August 23, 2017, EPA issued to TAI and includes EPA's evaluation of data sets developed since August 2017. TAI continued reviewing EPA's updated evaluation and will coordinate a technical call with EPA following this review to for further discussion of EPA's December 23, 2021 letter.

RI Report – TAI received EPA's full set of draft comments on the pre-draft RI report via email on December 23, 2021 and is the process of reviewing the comments. A call was held on January 31, 2022 to discuss some of EPA comments on the human health risk assessment summary provided in the pre-draft RI report. Additional calls may be scheduled to discuss other technical and programmatic comments to advance resolution of comments on the pre-draft RI report.

2019 Phase 3 Sediment Study:

- 2019 Phase 3 Sediment Study Data Summary Report (DSR) – EPA approved the revised draft final DSR on December 23, 2021. TAI submitted the final DSR to EPA on January 24, 2022.
- Split Sediment and Porewater Chemistry Analyses – TAI received EPA's initial draft interlaboratory split sample comparison and evaluation memorandum via email on June 16, 2020. TAI reviewed the memo and provided comments to EPA on July 14, 2020. Subsequently, EPA requested, and TAI provided additional sample splits for analysis in accordance with EPA's Phase 3 Sediment Study Split Sample Chemistry Quality Assurance Project Plan Addendum that was finalized on September 21, 2020. EPA and TAI participated on a call on May 7, 2021, along with EPA's contract laboratory and TAI's contracted laboratory personnel, to discuss the results of the additional sediment sample analyses. On August 11, 2021, TAI received EPA's revised sediment and porewater split sample chemistry analyses data validation and comparison memo and EPA's response to comments. TAI submitted comments on the revised sample comparison memo for submittal to EPA on September 7, 2021, and is awaiting the revised draft interlaboratory split sample comparison and evaluation memorandum from EPA.
- Split Sample Bioassay Testing
 - On March 31, 2021, TAI received EPA's Data Verification and Validation Report for the U.S. Geological Survey Columbia Environmental Research Center (CERC) chemistry data for the 2019 Phase 3 sediment study bioassay split sample program. TAI provided comments to EPA on the data verification and validation report on April 23, 2021. TAI received EPA's second revision of the bioassay chemistry data verification and validation report on August 5, 2021 with EPA's responses to TAI's comments on the previous draft. TAI provided comments on this second revision of the data verification and validation report to EPA on August 19, 2021. TAI received the third revised draft bioassay chemistry data verification and

validation report from EPA on January 31, 2022 and as of this writing is reviewing the report and EPA's responses to TAI comments on the August 5, 2021 version of the memo.

- EPA and TAI participated on two phone calls, on April 30 and June 16, 2021, to discuss TAI's and EPA's respective analyses of the Phase 3 bioassay quartz sand control performance and results. TAI later received a technical memorandum from EPA on July 19, 2021, titled "Phase 3 Sediment Study 42-day *Hyaella azteca* Bioassay Quartz Sand Negative Control Performance Evaluation," which summarizes EPA's analysis of the quartz sand negative control performance and provides guidance on the use and interpretation of the results. TAI will consider this information during development of the forthcoming Phase 3 sediment study data analysis technical memorandum and pre-draft aquatic BERA.
 - TAI received EPA's Interlaboratory Split Sample Bioassay Comparison Memo on June 21, 2021. TAI provided comments on this memo to EPA on July 30, 2021. EPA provided a revised memo and responses to TAI comments on October 5, 2021. TAI provided comments on the revised memo and EPA responses to EPA on November 23, 2021, and is awaiting the revised draft split bioassay comparison memo from EPA.
- 2019 Phase 3 Sediment Study Data Analyses Technical Memorandum – TAI submitted the draft Technical Memorandum to EPA for review and comment on November 19, 2021.

Should you have any questions or require any additional information, please do not hesitate to contact me at 509-623-4515.